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Respectfully submitted,



J. Andrew Lowes

Registration No. 40,706

Dated: 12/10/01
HAYNES AND BOONE, LLP
901 Main Street Suite 3100
Dallas, Texas 75202-3789
Telephone: 214/651-5627
Facsimile: 214/651-5940
Docket Number: 31181.26

D-968277.1

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Laura Johnson	TYPE OR PRINT NAME
	
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10/018023

JC19 Rec'd PCT/PTO 10 DEC 2001

IN THE INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY

International Application No.: § Applicant:
PCT/US00/15473 § ORTHODYNE, INC., et al
§
International Filing Date: § Title of Invention:
06 June 2000 § FEMORAL INTRAMEDULLARY
§ ROD SYSTEM
Priority Date: §
10 June 1999 §

TRANSMITTAL

Box PCT
Commissioner of Patents
Washington, DC 20231
Attention: IPEA/US

Dear Sirs:

Enclosed are the following regarding the above-identified application:

1. Response to Written Opinion mailed August 3, 2001;
2. Replacement pages 42A-43A;
3. Request for Change in International Application Letter Under PCT Rule 90 BIS; and
4. Return postcard.

Respectfully submitted,


J. Andrew Lowes
Registration No. 40,706

Dated: 10/2/01
HAYNES AND BOONE, LLP
901 Main Street, Suite 3100
Dallas, Texas 75202-3789
Telephone: 214/651-5627
Facsimile: 214/651-5940
File: 31181.7

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
PRELIMINARY EXAMINATION AUTHORITY (IPEA/US)

International Application No.:	§ Applicant:
PCT/US00/15473	§ ORTHODYNE, INC., et al
	§
International Filing Date:	§ Title of Invention:
06 June 2000	§ FEMORAL INTRAMEDULLARY
	§ ROD SYSTEM
Priority Date:	§
10 June 1999	§

RESPONSE TO WRITTEN OPINION

Box PCT
Commissioner of Patents
Washington, DC 20231
Attention: IPEA/US

Dear Sirs:

In response to the Written Opinion mailed August 3, 2001, please consider the following amendments. Applicant encloses replacement sheets 42A-43A.

In the claims

Please cancel 33 and amend the following claims.

34. (Amended) [The apparatus of claim 33] A bone fracture treatment apparatus comprising:

an elongated intramedullary nail having a longitudinal axis and a transverse axis generally perpendicular to the longitudinal axis, said nail defining a transverse opening therethrough, said opening extending along the transverse axis from a first side of said nail to an opposite second side of said nail, said opening being bounded by an upper surface and an opposite lower surface, one of said upper and lower surfaces defining a first projection between said first side and said second side, said first projection extending in a longitudinal direction to narrow a dimension of said opening along the longitudinal axis, further comprising a sleeve with first and second apertures positioned on opposite sides of said sleeve and configured to align with said opening to form a passageway, said passageway following a pathway from one of said apertures to the other of said apertures, said pathway being oriented at an oblique angle to the longitudinal axis.

38. (Amended) [The system of claim 33 wherein said first projection defines an apex.] A bone fracture treatment apparatus configured to receive at least one bone fastener, comprising:

an elongated intramedullary nail having a longitudinal axis and a transverse axis generally perpendicular to the longitudinal axis, said nail defining a transverse opening therethrough, said opening extending along the transverse axis from a first side of said nail to an opposite second side of said nail, said opening being bounded by an upper surface and an opposite lower surface, each of said upper and lower surfaces defining a respective upper and lower projection between said first side and said second side, said upper and lower projections extending in a longitudinal direction to narrow a dimension of said opening along the longitudinal axis;

said upper projection having a first portion extending at a first angle with respect to said transverse axis, said lower projection having a second portion extending at a second angle with respect to said transverse axis, said first portion and said second portion substantially parallel and spaced a first distance along said longitudinal axis to define a first passage through said transverse opening.

39. (Amended) [The system of claim 33 wherein the other of said one of said upper and lower surfaces defines a second projection between said first side and said second side, said second projection extending in a longitudinal direction and positioned generally opposite said first projection to further narrow a dimension of said opening along the longitudinal axis.] The apparatus of claim 38, wherein said upper projection includes a third portion and said lower projection includes a fourth portion, said third portion and said fourth portion in substantial parallel alignment and spaced a second distance along said longitudinal axis to define a second passage through said transverse opening.

40. (Amended) [The system of claim 39 wherein said second projection defines an apex.] The apparatus of claim 38, wherein said transverse opening has a first length and further including a bone fastener having a width and a longitudinal length, said width substantially equal to said first distance and said longitudinal length substantially greater than said first length.

REMARKS

Claims 1-48 were previously pending, of which claim 33 has been cancelled.

Applicant acknowledges and appreciates the indication that claims 1-32, 34-37 and 41-48 meet the criteria set out in PCT Article 33 (2) - (4). Claim 34 has been rewritten in independent form to include the limitations of base claim 33.

Claims 33 and 38-40 were indicated as lacking novelty in view of Kim. Claim 33 has been cancelled and claims 38-40 have been amended to more clearly define Applicant's invention. The Kim patent fails to teach or suggest the elements of amended claim 38. Specifically, Kim does not disclose upper and lower projections in the opening having substantially parallel portions defining a first passage through the transverse opening. Reconsideration of the amended claims is respectfully requested.

The pending claims 1-32 and 34-48 as shown on the attached replacement sheets are believed to be in compliance with the PCT Articles and a favorable Examination Report is hereby respectfully requested.

Respectfully submitted,



J. Andrew Lowes
Registration No. 40,706

Dated: 10/2/01
HAYNES AND BOONE, LLP
901 Main Street Suite 3100
Dallas, Texas 75202-3789
Telephone: 214/651-5627
Facsimile: 214/651-5940
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29. The system of claim 28 wherein said opening has a third angled surface aligned at a second oblique angle relative to said longitudinal axis to engage said bone engaging member in another abutting relationship when said sleeve is aligned in another position to define a second passageway, and said bone engaging member is positioned within said second passageway.

5 30. The system of claim 29 wherein said opening has a fourth angled surface generally opposite said third angled surface to engage said bone engaging member, said third and fourth angled surfaces cooperating to define a second pathway oriented at said second oblique angle for said bone engaging member to follow when received in said second passageway.

10 31. The system of claim 30 wherein said first and second oblique angles are each about 135 degrees.

32. The system of claim 30 wherein said opening extends through said nail and wherein said first and third angled surfaces define a first apex and said second and fourth angled surfaces define a second apex opposite said first apex.

33. Cancelled

15 34. A bone fracture treatment apparatus comprising:
an elongated intramedullary nail having a longitudinal axis and a transverse axis generally perpendicular to the longitudinal axis, said nail defining a transverse opening therethrough, said opening extending along the transverse axis from a first side of said nail to an opposite second side of said nail, said opening being bounded by an upper surface and an opposite
20 lower surface, one of said upper and lower surfaces defining a first projection between said first side and said second side, said first projection extending in a longitudinal direction to narrow a dimension of said opening along the longitudinal axis, further comprising a sleeve with first and second apertures positioned on opposite sides of said sleeve and configured to align with said opening to form a passageway, said passageway following a pathway from one of said apertures to
25 the other of said apertures, said pathway being oriented at an oblique angle to the longitudinal axis.

35. The apparatus of claim 34, further comprising a bone engaging member sized to pass through said passageway and contact said first projection when positioned in said passageway.

36. The apparatus of claim 34 wherein said nail includes a transverse passage extending at least partially therethrough and configured to accept a fastener, said sleeve includes a third aperture configured to align with said transverse passage, said fastener releasably securing said sleeve to said nail when said fastener is positioned through said third aperture and 5 into said transverse passage.

37. The system of claim 36 wherein said nail includes a longitudinal passage extending therethrough, and wherein said fastener has a length which does not extend into said longitudinal passage when said sleeve is releasably secured to said nail.

38. A bone fracture treatment apparatus configured to receive at least one bone 10 fastener, comprising:

an elongated intramedullary nail having a longitudinal axis and a transverse axis generally perpendicular to the longitudinal axis, said nail defining a transverse opening therethrough, said opening extending along the transverse axis from a first side of said nail to an opposite second side of said nail, said opening being bounded by an upper surface and an opposite 15 lower surface, each of said upper and lower surfaces defining a respective upper and lower projection between said first said and said second side, said upper and lower projections extending in a longitudinal direction to narrow a dimension of said opening along the longitudinal axis;

said upper projection having a first portion extending at a first angle with respect to said 20 transverse axis, said lower projection having a second portion extending at a second angle with respect to said transverse axis, said first portion and said second portion substantially parallel and spaced a first distance along said longitudinal axis to define a first passage through said transverse opening.

39. The apparatus of claim 38, wherein said upper projection includes a third portion 25 and said lower projection includes a fourth portion, said third portion and said fourth portion in substantial parallel alignment and spaced a second distance along said longitudinal axis to define a second passage through said transverse opening.

40. The apparatus of claim 38, wherein said transverse opening has a first length and further including a bone fastener having a width and a longitudinal length, said width 30 substantially equal to said first distance and said longitudinal length substantially greater than said first length.

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§ ROD SYSTEM
Priority Date: §
10 June 1999 §

REQUEST FOR CHANGE IN INTERNATIONAL APPLICATION
LETTER UNDER PCT RULE 90 BIS

Box PCT
Commissioner of Patents
Washington, DC 20231
Attention: IPEA/US

Dear Sirs:

Applicant requests the Agent Address be changed in the above-identified application to the following:

J. Andrew Lowes
Haynes and Boone, LLP
901 Main Street, Suite 3100
Dallas, Texas 75202
United States of America

Phone: 214-651-5627
Facsimile: 214-651-5940
E-Mail: LowesA@HaynesBoone.com

Applicant respectfully requests approval.

Respectfully submitted,


J. Andrew Lowes
Registration No. 40,706

Dated: 10/2/01
HAYNES AND BOONE, LLP
901 Main Street, Suite 3100
Dallas, Texas 75202-3789
Telephone: 214/651-5627
Facsimile: 214/651-5940
File: 31181.7
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